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METHOD AND SYSTEM FOR FINDING MATCH IN DATABASE RELATED TO WAVEFORMS

ABSTRACT OF THE DISCLOSURE

To determine whether there is a record in a database corresponding to a file containing a waveform, one or more segments of a digitally sampled waveform are used to form an amplitude signature of the waveform. The amplitude signature is generated by counting the number of occurrences within the segment(s) of the waveform in each of a plurality of amplitude bands or slots. The amplitude signature of the waveform undergoes a fuzzy comparison with amplitude signatures in the database. If more than one potential match is found, a more precise comparison is made. This technique can be used with compact discs (CDs) by taking, e.g., five second sample segments from the beginning, middle and end of each track to detect the amplitude of the waveform in each of 558 samples in the 1/75 second frames recorded in the sample segments of the CD. A CD amplitude signature may be formed of approximately 2000 amplitude bands or slots from the lowest amplitude to the highest amplitude of the waveform by accumulating the occurrence of signals within each amplitude slot for all of the sample segments of the CD. The amplitude signature can be used to distinguish between multiple potential matches obtained based on table of contents (TOC) data for the CD indicating the number of tracks and the length of each.